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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/080,943

DATE: 10/22/2002

TIME: 10:04:22

Input Set : A:\Ju99-pct.app  
 Output Set: N:\CRF4\10222002\J080943.raw

3 <110> APPLICANT: Field, Loren J.  
 4 Tsai, Shih-Chong  
 6 <120> TITLE OF INVENTION: P193 PROTEINS AND NUCLEIC ACIDS, AND USES THEREOF  
 8 <130> FILE REFERENCE: IU99-PCT  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/080,943  
 C--> 11 <141> CURRENT FILING DATE: 2002-10-09  
 13 <150> PRIOR APPLICATION NUMBER: 60/150,266  
 14 <151> PRIOR FILING DATE: 1999-08-23  
 16 <160> NUMBER OF SEQ ID NOS: 4  
 18 <170> SOFTWARE: PatentIn Ver. 2.1  
 20 <210> SEQ ID NO: 1  
 21 <211> LENGTH: 5217  
 22 <212> TYPE: DNA  
 23 <213> ORGANISM: Mus musculus  
 25 <220> FEATURE:  
 26 <221> NAME/KEY: CDS  
 27 <222> LOCATION: (62)..(5128)  
 29 <400> SEQUENCE: 1  
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 32 g atg gta ggg gag cta cga tac agg gaa ttc agg gtg ccc ctg ggg cct 109  
 33 Met Val Gly Glu Leu Arg Tyr Arg Glu Phe Arg Val Pro Leu Gly Pro  
 34 1 5 10 15  
 36 ggc ttg cac gcg tat ccg gat gaa ttg atc cgc caa cgg gtt ggc cat 157  
 37 Gly Leu His Ala Tyr Pro Asp Glu Leu Ile Arg Gln Arg Val Gly His  
 38 20 25 30  
 40 aat ggg cac ccc gag tat cag atc cgc tgg ctc atc ctc agg cgc ggg 205  
 41 Asn Gly His Pro Glu Tyr Gln Ile Arg Trp Leu Ile Leu Arg Arg Gly  
 42 35 40 45  
 44 gat gat ggg gac cgg gac tct aca gtg gac tgc aag gct gag cat atc 253  
 45 Asp Asp Gly Asp Arg Asp Ser Thr Val Asp Cys Lys Ala Glu His Ile  
 46 50 55 60  
 48 ctg tta tgg atg tct gac gat gag atc tat gcc aac tgc cac aag atg 301  
 49 Leu Leu Trp Met Ser Asp Asp Glu Ile Tyr Ala Asn Cys His Lys Met  
 50 65 70 75 80  
 52 ctg ggc gag aat ggc caa gtc atc gca cct tcc cgg gag tcc act gag 349  
 53 Leu Gly Glu Asn Gly Gln Val Ile Ala Pro Ser Arg Glu Ser Thr Glu  
 54 85 90 95  
 56 gca ggg gcc ctc gac aag tct gtg ctg ggg gag atg gaa aca gat gtg 397  
 57 Ala Gly Ala Leu Asp Lys Ser Val Leu Gly Glu Met Glu Thr Asp Val  
 58 100 105 110  
 60 aag tcc ttg att cag agg gcc ctt cgg cag ctg gag gag tgc gtg ggc 445  
 61 Lys Ser Leu Ile Gln Arg Ala Leu Arg Gln Leu Glu Glu Cys Val Gly  
 62 115 120 125

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64 acc gtg cct cct gcc cct ctc ctt cac acg gtc cat gta ctc agt gcc	493
65 Thr Val Pro Pro Ala Pro Leu Leu His Thr Val His Val Leu Ser Ala	
66 130 135 140	
68 tat gcc agc atc gag ccc ctc act ggc atc ttc aaa gac cgc agg gtt	541
69 Tyr Ala Ser Ile Glu Pro Leu Thr Gly Ile Phe Lys Asp Arg Arg Val	
70 145 150 155 160	
72 gtg aac ttg ctc atg cac atg ttg agc agt cct gat tat cag atc cgc	589
73 Val Asn Leu Leu Met His Met Leu Ser Ser Pro Asp Tyr Gln Ile Arg	
74 165 170 175	
76 tgg agc gca ggc cggtt atg atc caa gct ctg tcc tcc cac gat gct ggg	637
77 Trp Ser Ala Gly Arg Met Ile Gln Ala Leu Ser Ser His Asp Ala Gly	
78 180 185 190	
80 acc cgg acc cag atc ctt ctg tca ttg agc caa caa gag ggc att gaa	685
81 Thr Arg Thr Gln Ile Leu Leu Ser Leu Ser Gln Gln Glu Ala Ile Glu	
82 195 200 205	
84 aag cac ctg gat ttt gat agc cgc tgc gct ctg ctt gca ctg ttc gcc	733
85 Lys His Leu Asp Phe Asp Ser Arg Cys Ala Leu Leu Ala Leu Phe Ala	
86 210 215 220	
88 cag gct act ctc acg gaa cac ccg atg tct ttc gag ggc gtt cag ctg	781
89 Gln Ala Thr Leu Thr Glu His Pro Met Ser Phe Glu Gly Val Gln Leu	
90 225 230 235 240	
92 cca cag gtc cca gga ccg ctg ctc ttc tcc ctg gta aaa cgc tac ctg	829
93 Pro Gln Val Pro Gly Arg Leu Leu Phe Ser Leu Val Lys Arg Tyr Leu	
94 245 250 255	
96 cac gtc acc ttc ctc ctg gat ccg ctg aac ggc gat gca ggg gat caa	877
97 His Val Thr Phe Leu Leu Asp Arg Leu Asn Gly Asp Ala Gly Asp Gln	
98 260 265 270	
100 gga gcc cag aac aac ttt agt cct gag gag ttg aat gta ggg agg ggc	925
101 Gly Ala Gln Asn Asn Phe Ser Pro Glu Glu Leu Asn Val Gly Arg Gly	
102 275 280 285	
104 ccg ctg gaa ctg gaa ttc agt atg gcc atg ggc act ctg atc tct gag	973
105 Arg Leu Glu Leu Glu Phe Ser Met Ala Met Gly Thr Leu Ile Ser Glu	
106 290 295 300	
108 ctg gtg cag gcc atg cgc tgg gac ggg ggc tca agc aga cca gag agt	1021
109 Leu Val Gln Ala Met Arg Trp Asp Gly Ala Ser Ser Arg Pro Glu Ser	
110 305 310 315 320	
112 tct tcc tcc acc ttc cag cct ccg cca gca cag ttc cgc ccc tac	1069
113 Ser Ser Ser Thr Phe Gln Pro Arg Pro Ala Gln Phe Arg Pro Tyr	
114 325 330 335	
116 acc cag cgt ttc agg agg tcg agg ccg ttt cgc ccc cgt gcc tcg ttt	1117
117 Thr Gln Arg Phe Arg Arg Ser Arg Arg Phe Arg Pro Arg Ala Ser Phe	
118 340 345 350	
120 gcc agt ttt aat acc tat gcc ttg tat gtg ccg gac acg ctg ccg ccc	1165
121 Ala Ser Phe Asn Thr Tyr Ala Leu Tyr Val Arg Asp Thr Leu Arg Pro	
122 355 360 365	
124 ggg atg ccg gta ccg atg ctg gag aat tac gag gag atc gct gct ggg	1213
125 Gly Met Arg Val Arg Met Leu Glu Asn Tyr Glu Glu Ile Ala Ala Gly	
126 370 375 380	
128 gat gag ggc cag ttc cga cag agc aat gat ggc gtt ccc cca gcg cag	1261

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129 Asp Glu Gly Gln Phe Arg Gln Ser Asn Asp Gly Val Pro Pro Ala Gln			
130 385	390	395	400
132 gtg ttg tgg gat tca aca ggc cat acc tac tgg gtg cac tgg cac atg			1309
133 Val Leu Trp Asp Ser Thr Gly His Thr Tyr Trp Val His Trp His Met			
134	405	410	415
136 ctg gag atc ttg ggc ttt gag gaa gac atc gag gat gtg att gat att			1357
137 Leu Glu Ile Leu Gly Phe Glu Glu Asp Ile Glu Asp Val Ile Asp Ile			
138	420	425	430
140 gaa gag tta cag gag cta ggg gcc aat gga gca ctg agc atc gtc ccg			1405
141 Glu Glu Leu Gln Glu Leu Gly Ala Asn Gly Ala Leu Ser Ile Val Pro			
142	435	440	445
144 ccg tcc cag cgc tgg aag ccc ata act cag ctc ttt gcc gag cct tac			1453
145 Pro Ser Gln Arg Trp Lys Pro Ile Thr Gln Leu Phe Ala Glu Pro Tyr			
146	450	455	460
148 gtg gta ccc gag gag gac agg gaa gag agc gag aac ttg acc cag			1501
149 Val Val Pro Glu Glu Asp Arg Glu Glu Ser Glu Asn Leu Thr Gln			
150 465	470	475	480
152 gct gag tgg tgg gag ctc ctc atc cgg cag ttg agt gag gca			1549
153 Ala Glu Trp Trp Glu Leu Leu Phe Phe Ile Arg Gln Leu Ser Glu Ala			
154	485	490	495
156 gag cgc ctt cac atc gtg gat ctc ctg caa gac cac ctg gaa gag gag			1597
157 Glu Arg Leu His Ile Val Asp Leu Leu Gln Asp His Leu Glu Glu Glu			
158	500	505	510
160 cgc gtt ctg gac tac gat atg ctg ctc gag ctg acc gtg ccc gtt gac			1645
161 Arg Val Leu Asp Tyr Asp Met Leu Pro Glu Leu Thr Val Pro Val Asp			
162	515	520	525
164 ttg gcc cag gat ctg ctg ttg tct ctg cct cag caa ctt gag gac agt			1693
165 Leu Ala Gln Asp Leu Leu Ser Leu Pro Gln Gln Leu Glu Asp Ser			
166	530	535	540
168 gct ctg agg gac ctg ttc agc tgc agt gtc tac agg aag tat ggg ccc			1741
169 Ala Leu Arg Asp Leu Phe Ser Cys Ser Val Tyr Arg Lys Tyr Gly Pro			
170 545	550	555	560
172 gaa gtc ctg gta ggg cat cta agc tac cca ttt gtg cca ggt gcc cag			1789
173 Glu Val Leu Val Gly His Leu Ser Tyr Pro Phe Val Pro Gly Ala Gln			
174	565	570	575
176 cca aat tta ttc gga gcc aat gaa gag tct gaa gcc aaa gat ccc cca			1837
177 Pro Asn Leu Phe Gly Ala Asn Glu Glu Ser Glu Ala Lys Asp Pro Pro			
178	580	585	590
180 ctt cag agt gcc agc cct gcc ctg cag cgc ctg gtg gag agc ttg ggc			1885
181 Leu Gln Ser Ala Ser Pro Ala Leu Gln Arg Leu Val Glu Ser Leu Gly			
182	595	600	605
184 ccc gaa ggg gag gtc ctt gtg gaa ctg gaa caa gcc ctc ggc tcc gag			1933
185 Pro Glu Gly Glu Val Leu Val Glu Leu Glu Gln Ala Leu Gly Ser Glu			
186	610	615	620
188 gct ccc cag gaa act gag gtc aag tcc tgc ttg ttg cag ctc cag gag			1981
189 Ala Pro Gln Glu Thr Glu Val Lys Ser Cys Leu Leu Gln Leu Gln Glu			
190 625	630	635	640
192 cag ccc cag ccc ttc ctc gct ctg atg cgg agc ctg gac act tcc gcc			2029
193 Gln Pro Gln Pro Phe Leu Ala Leu Met Arg Ser Leu Asp Thr Ser Ala			

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194	645	650	655	
196	agc aac aag acc ctg cac ctc act gtg ctc aga atc tta atg cag ctg			2077
197	Ser Asn Lys Thr Leu His Leu Thr Val Leu Arg Ile Leu Met Gln Leu			
198	660	665	670	
200	gtg aac ttc cca gag gcg ctg ttg cta ccc tgg cac gag gcc atg gat			2125
201	Val Asn Phe Pro Glu Ala Leu Leu Pro Trp His Glu Ala Met Asp			
202	675	680	685	
204	gcc tgc gtg acc tgc ctt cgg tcc ccc aat act gac cga gag gtg ctc			2173
205	Ala Cys Val Thr Cys Leu Arg Ser Pro Asn Thr Asp Arg Glu Val Leu			
206	690	695	700	
208	cag gaa cta atc ttt ttc ctg cac cgc ctg acc acc aca agc cgg gac			2221
209	Gln Glu Leu Ile Phe Leu His Arg Leu Thr Thr Ser Arg Asp			
210	705	710	715	720
212	tat gcg gtg ata cta aac cag cat gga gcc cgg gac gcc atc tcc aaa			2269
213	Tyr Ala Val Ile Leu Asn Gln His Gly Ala Arg Asp Ala Ile Ser Lys			
214	725	730	735	
216	gtc ctg gaa aag cac cga ggg aaa ctg gag ttg gct cag gag ctg cgg			2317
217	Val Leu Glu Lys His Arg Gly Lys Leu Glu Leu Ala Gln Glu Leu Arg			
218	740	745	750	
220	gat atg gtg tcc aag tgt gag aag cat gcc cac ctc tac cgg aaa ctc			2365
221	Asp Met Val Ser Lys Cys Glu Lys His Ala His Leu Tyr Arg Lys Leu			
222	755	760	765	
224	acc acc aac atc ctg ggc ggt tgc atc cag atg gtc ctg ggt cag att			2413
225	Thr Thr Asn Ile Leu Gly Gly Cys Ile Gln Met Val Leu Gly Gln Ile			
226	770	775	780	
228	gaa gac cac aga cga acc cac cgg ccc atc caa atc cca ttc ttt gat			2461
229	Glu Asp His Arg Arg Thr His Arg Pro Ile Gln Ile Pro Phe Phe Asp			
230	785	790	795	800
232	gtg ttt ctc aga tat ctg tgc cag ggc tcc agt gag gaa atg aag aaa			2509
233	Val Phe Leu Arg Tyr Leu Cys Gln Gly Ser Ser Glu Glu Met Lys Lys			
234	805	810	815	
236	aac agg tac tgg gag aag gtg gag gtg tcc tcc aac cca cag cgg gcc			2557
237	Asn Arg Tyr Trp Glu Lys Val Glu Val Ser Ser Asn Pro Gln Arg Ala			
238	820	825	830	
240	agc agg ctg acg gac cgc aac ccc aag acc tac tgg gag tcc agt ggc			2605
241	Ser Arg Leu Thr Asp Arg Asn Pro Lys Thr Tyr Trp Glu Ser Ser Gly			
242	835	840	845	
244	agg gcc tcc cac ttc atc acc tta cac atg cgc cca ggt gtc atc			2653
245	Arg Ala Gly Ser His Phe Ile Thr Leu His Met Arg Pro Gly Val Ile			
246	850	855	860	
248	atc agg cag ctg act cta ctg gtg gct ggc gag gac tca agc tac atg			2701
249	Ile Arg Gln Leu Thr Leu Leu Val Ala Gly Glu Asp Ser Ser Tyr Met			
250	865	870	875	880
252	cca gcc tgg gtg gtg gta tgc ggg ggc aac agc atc aag tcc gtt aat			2749
253	Pro Ala Trp Val Val Cys Gly Gly Asn Ser Ile Lys Ser Val Asn			
254	885	890	895	
256	aaa gaa ctc aac acg gta aac gtg atg ccc tct gcc agc cgg gtg acc			2797
257	Lys Glu Leu Asn Thr Val Asn Val Met Pro Ser Ala Ser Arg Val Thr			
258	900	905	910	

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260	ctc	ctg	gag	aac	ctg	acc	cgc	ttc	tgg	ccc	atc	atc	caa	atc	aga	ata	2845
261	Leu	Leu	Glu	Asn	Leu	Thr	Arg	Phe	Trp	Pro	Ile	Ile	Gln	Ile	Arg	Ile	
262																	
	915							920						925			
264	aag	cgc	tgc	cag	cag	ggt	ggc	att	aac	acg	cgc	atc	cgg	ggc	cta	gag	2893
265	Lys	Arg	Cys	Gln	Gln	Gly	Gly	Ile	Asn	Thr	Arg	Ile	Arg	Gly	Leu	Glu	
266																	
	930							935						940			
268	gtg	ctg	ggc	ccc	aag	ccc	acc	ttc	tgg	cca	gtg	ttc	cga	gag	caa	ctg	2941
269	Val	Leu	Gly	Pro	Lys	Pro	Thr	Phe	Trp	Pro	Val	Phe	Arg	Glu	Gln	Leu	
270								945				950		955			960
272	tgc	cgg	cac	acg	cgc	ctc	ttc	tac	atg	gtt	cgg	gcc	cag	gca	tgg	agt	2989
273	Cys	Arg	His	Thr	Arg	Leu	Phe	Tyr	Met	Val	Arg	Ala	Gln	Ala	Trp	Ser	
274												965		970			975
276	cag	gac	ata	gca	gag	gac	cgc	cgg	agc	ctt	ctg	cac	ctg	agt	tct	agg	3037
277	Gln	Asp	Ile	Ala	Glu	Asp	Arg	Arg	Ser	Leu	Leu	His	Leu	Ser	Ser	Arg	
278												980		985			990
280	cta	aat	ggg	gct	ctg	cgc	cat	gaa	cag	aat	ttt	gca	gag	cgc	ttc	ctt	3085
281	Leu	Asn	Gly	Ala	Leu	Arg	His	Glu	Gln	Asn	Phe	Ala	Glu	Arg	Phe	Leu	
282												995		1000			1005
284	cct	gat	atg	gag	gcc	gcc	caa	gca	ctg	agc	aag	acc	tgc	tgg	gag	gcg	3133
285	Pro	Asp	Met	Glu	Ala	Ala	Gln	Ala	Leu	Ser	Lys	Thr	Cys	Trp	Glu	Ala	
286												1010		1015			1020
288	ctg	gtc	agc	ccc	ctg	gtg	cag	aac	att	aca	tct	ccc	gat	gag	gac	agc	3181
289	Leu	Val	Ser	Pro	Leu	Val	Gln	Asn	Ile	Thr	Ser	Pro	Asp	Glu	Asp	Ser	
290												1025		1030			1040
292	acc	agc	tcc	ttg	ggc	tgg	ctg	ctg	gat	cag	tac	ttg	gga	tgc	agg	gag	3229
293	Thr	Ser	Ser	Leu	Gly	Trp	Leu	Leu	Asp	Gln	Tyr	Leu	Gly	Cys	Arg	Glu	
294												1045		1050			1055
296	gct	gcc	tac	aat	ccc	cag	agc	agg	gct	gct	ttc	tcc	tcc	cggt			3277
297	Ala	Ala	Tyr	Asn	Pro	Gln	Ser	Arg	Ala	Ala	Ala	Phe	Ser	Ser	Arg	Val	
298												1060		1065			1070
300	cgc	cgc	ctt	acc	cac	ctc	ctg	gtc	cat	gtg	gag	ccc	cgt	gag	gca	gca	3325
301	Arg	Arg	Leu	Thr	His	Leu	Leu	Val	His	Val	Glu	Pro	Arg	Glu	Ala	Ala	
302												1075		1080			1085
304	cct	ccg	gtg	gtg	gcc	atc	cct	cga	tcc	aag	ggc	agg	aac	aga	atc	cat	3373
305	Pro	Pro	Val	Val	Ala	Ile	Pro	Arg	Ser	Lys	Gly	Arg	Asn	Arg	Ile	His	
306												1090		1095			1100
308	gac	tgg	agc	tac	ttg	atc	acc	cgg	ggc	ctt	cca	agt	agc	atc	atg	aag	3421
309	Asp	Trp	Ser	Tyr	Leu	Ile	Thr	Arg	Gly	Leu	Pro	Ser	Ser	Ile	Met	Lys	
310												1105		1110			1120
312	aac	ctg	acc	cgc	tgt	tgg	cggt	tct	gtg	gtg	gag	gag	cag	atg	aac	aag	3469
313	Asn	Leu	Thr	Arg	Cys	Trp	Arg	Ser	Val	Val	Glu	Glu	Gln	Met	Asn	Lys	
314												1125		1130			1135
316	ttt	ctc	agt	gct	tcc	tgg	aaa	gac	gat	gat	ttc	gta	ccc	cgc	tat	tgc	3517
317	Phe	Leu	Ser	Ala	Ser	Trp	Lys	Asp	Asp	Asp	Phe	Val	Pro	Arg	Tyr	Cys	
318												1140		1145			1150
320	gag	cgc	tat	tac	gtc	ctg	cag	aag	tcc	agc	tca	gag	ctg	ttt	ggg	cca	3565
321	Glu	Arg	Tyr	Tyr	Val	Leu	Gln	Lys	Ser	Ser	Ser	Glu	Leu	Phe	Gly	Pro	
322												1155		1160			1165
324	cga	gct	gcc	ttc	ttg	ctg	gca	atg	cgg	aat	ggc	tgt	gct	gat	gtc		3613

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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date